Standing, left to right: Dr. Oswald T. Avery, Dr. Lowell J. Reed, Dr. Thomas Francis, Jr., Dr. Homer Smith, Dr. Thomas Parran, Sir Wilson Jameson, Dr. George Baehr, and Dr. Reginald M. Atwater. Seated: Mrs. Albert D. Lasker and Dr. Alice Hamilton.

THE LASKER AWARDS FOR 1947

THE Lasker Awards of the American Public Health Association are presented annually by the Albert and Mary Lasker Foundation to men and women in the field of medical research and public health administration whose efforts have contributed to, or will in time result in, the vastly improved health status of the peoples of the earth. In addition, outstanding work or research done by large groups where it is impossible to single out any one individual, is honored.

The awards are given not only to honor the recipients and dramatize their accomplishments but also to arouse increased professional and public interest in medical research and public health administration and to aid in the rapid dissemination of new medical information.

The Lasker Awards for 1947 were conferred on October 9, 1947, at the Second General Session of the 75th Annual Meeting in Atlantic City, N. J. Five individuals and two groups were honored. The beautifully illuminated citations read as follows:

To Oswald T. Avery, M.D., for studies on the antigenic constitution of bacteria.

With unusual persistence, remarkable insight and extraordinary accuracy of observation, Oswald T. Avery has devoted the greater part of his scientific career to the study of the pneumococcus.

Animated by an unsurpassed intellectual curiosity and a desire to conquer one of the most deadly enemies of man, he undertook to elucidate in logical sequence the biological

activities, the immunological characteristics, and the pathogenic properties of the pneumococcus. In this he so far succeeded that today it is fair to say that more is known about this organism than about any other human parasite.

Were this all it would be a unique accomplishment, but quite early in the course of his investigations he became interested in searching for a chemical explanation for the type-specificity of pneumococci. As a consequence, he discovered and identified the capsular polysaccharides and demonstrated their role in determining this specificity.

He furthermore succeeded in throwing light on the immunological relationships of the intracellular constituents of this organism.

Through these discoveries he laid the foundation for his brilliant analysis in chemical terms of the antigenic constitution of the whole pneumococcus. He thus established a perfect pattern for the antigenic analysis of other microörganisms both by himself and by others who have followed in his footsteps.

Among Dr. Avery's many brilliant contributions to scientific knowledge none has been more outstanding than his studies on the antigenic constitution of bacteria. Through them he is one of the founders of the science of immunochemistry. Because of them our comprehension of the complex problems of infectious disease has been immeasurably enriched.

To Thomas Francis, Jr., M.D., for distinguished services through contributions to our total knowledge of influenza.

Thomas Francis, Jr., is honored with The Lasker Award in recognition of his distinguished contribution to our knowledge of influenza, and his effective leadership in the world-wide fight against this scourge of mankind.

Dr. Francis's researches on influenza began about two decades ago. In 1928 he joined the staff of the hospital of the Rockefeller Institute, and in 1936 he organized for the International Health Division of the Rockefeller Foundation the influenza study laboratories where pioneer work was done on the etiology and epidemiology of the disease. In 1938 he became Professor of Bacteriology at New York University, and in 1941 he accepted the professorship of Epidemiology and Chairmanship of the Department of Epidemiology in the newly established School of Public Health in the University of Michigan. In 1947 Dr. Francis was appointed to a distinguished professorship at Michigan, known as the Henry Sewell Professorship of Epidemiology.

Dr. Francis's contributions to scientific literature have been numerous and have brought him many honors. Since the first report in 1934 on the recovery of the virus of influenza A in the Western Hemisphere, which confirmed the primary observation of Smith, Andrewes, and Laidlaw, Dr. Francis's studies have included a series of immunological, epidemiological, and clinical observations directed toward a better understanding of the human disease. The demonstration with Magill of serological variations in strains has resulted in sustained studies of its significance in recurrent epidemics. The identification of influenza B and isolation of that virus added clarification to the problem by establishing a new entity in a complex field. His continuous investigations have contributed much to our knowledge of the global aspects of the disease.

Studies of the selective action of influenza virus on the respiratory epithelium and of antibodies in the respiratory secretions have given insight into the mechanisms of infection and immunity. From the original demonstration in 1936 that influenza virus given subcutaneously or intradermally could induce the formation of antibodies in man, successive studies have brought evidence in controlled observations of the effectiveness of human immunization against influenza.

As Director of the Commission on Influenza of the Army Epidemiological Board, Dr. Francis organized and actively participated in the establishment of "listening posts" for the detection of influenza in various parts of the United States, and in the Army studies which gave evidence that vaccination can be effective against epidemic influenza A and influenza B.

Thus Dr. Francis, through his own contributions and through his stimulation of other investigators, has made a notable contribution to our knowledge of influenza which affords a sound foundation for future work, and has created the hope that this disease may be eventually conquered.

To Homer Smith, D.Sc., for distinguished services through conclusive studies on cardiovascular and renal physiology.

Homer Smith is honored for his distinguished contributions in the fields of renal and vascular physiology.

His work falls into a unique and logical pattern. Early fundamental studies upon osmotic regulation in fish provided a basis for

a masterly analysis of the available data in the formulation of a theory of the evolution of the mammalian kidney.

Within this frame, he has been led to a fruitful investigation of the specific activities by which the mammalian kidney performs its regulatory duties. Unalterably opposed to the "unphysiological preparation" in experimentation, he devised simple tests by which glomerular filtration rate, renal blood flow, and renal tubular capacities might be measured quantitatively without pain, operative procedures, or anesthesia.

These tools of investigation are applicable in the study of man, and under Dr. Smith's direction, they have been energetically employed in man in clarifying problems of renal function in health and disease.

These studies are masterpieces of clinical investigation, sparkling with new concepts, gracefully phrased and logically developed. They have thrown new light upon the problems of renal and cardiorenal diseases, which are at present the chief causes of death, and have provided the background for many future investigations in this important field of medicine and public health.

Homer Smith has also been prominent among those responsible for the physiological bearing of the current trend in medical thinking. In part this influence springs from the character of the man.

Modest, self-effacing, and consecrated to his work, he does not shun the fight for what he considers is right, fair, and just. In paying tribute to his work, we pay homage to the man.

To Alice Hamilton, M.D., for an inspiring life of public service in the prevention of occupational disease.

To Dr. Alice Hamilton, pioneer American leader in industrial toxicology, for her contribution to the development of public health methods in industry, and to the prevention of occupational diseases.

After graduating in medicine at the University of Michigan in 1893, and postgraduate studies in Germany, Dr. Hamilton returned to the United States intending to specialize in bacteriology, pharmacology, and toxicology.

Because of her growing interest in social progress and labor reform, which increased through her friendship with Jane Addams and her associates at Hull House, Dr. Hamilton began to specialize in industrial medical problems shortly after the turn of the century. At that time industrial medicine was not yet considered a specialty, and the need for physicians in industry was not generally recognized.

Through her efforts to prevent lead poisoning, "phossy jaw" in the match industry, mercury poisoning, TNT poisoning in World War I, and her later investigations of benzol, carbon disulfide and other organic solvents, she has contributed much to the control of these hazards and to the establishment of the profession of industrial preventive medicine in this country.

Throughout her useful life Dr. Hamilton has worked to improve the health of human beings. She has helped the laborer, the unions, the large manufacturers, the universities, and the government, and all her investigations have been carried out with complete objectivity and fearless candor. She has never been either pro labor or pro capital, but has stood unwaveringly for the betterment of the worker's health.

Dr. Hamilton has been associated with many educational institutions, and the excellence of her contributions has been widely recognized by her scientific associates. After 26 years of service, she is now retired as one of the Emeritus Professors of the Harvard School of Public Health.

This Lasker Award is given to Dr. Hamilton in recognition of her outstanding accomplishments in industrial toxicology, and for the inspiration she has afforded to all those who are interested in industrial preventive medicine and world health.

To Thomas Parran, M.D., for outstanding contributions to the national health and to the World Health Organization.

Dr. Thomas Parran has achieved world-wide acclaim for his dynamic leadership in public health administration as well as for his successful pioneering against preventable disease. He is also the great advocate of support for medical research before the Congress and the American people.

Dr. Parran's public health service career has been a succession of striking achievements. It began during World War I with responsibility for extra-cantonment sanitation in an industrial city and its environs. He then organized county health work in the rural areas of several states, headed a sanitary district in a mining area, served as chief of rural sanitation activities in another state. He was Assistant Surgeon General of the U. S. Public Health Service in charge of the Division of Venereal Disease in its early days.

In 1930, he was loaned by President Hoover to Governor Roosevelt to become Commis-

sioner of Health of the State of New York, where he served with distinction for six years. For the past eleven years, he has served as Surgeon General of the U. S. Public Health Service.

In 1946, he was president of the International Health Conference of delegates from seventy nations, which resulted in the establishment of the World Health Organization of the United Nations. Since then, he has been the United States Delegate to the Interim Commission of the World Health Organization.

Throughout his brilliant public health career, Dr. Parran's activities have been signally characterized by the qualities of judgment, enthusiasm, courage, decisiveness, and vision.

This has been especially true of his forthright approach to the control of the venereal diseases, which began with the breakdown of public prejudice against the use of the terms "syphilis" and "gonorrhea."

This was followed by successive steps leading to the appropriation of federal grants-in-aid to the states, and the eventual establishment of rapid treatment centers throughout the land. If syphilis is finally wiped out in this country, it will be due to Dr. Parran's consistent courage and statesmanship, as much as to the discovery of a curaive drug.

With a vigorous originality of approach, he has developed new concepts of health services for the American people and the world. In addition, he has been able to secure the understanding and interest of the people and the support of their elected representatives. He has contributed substantially to the development of the World Health Organization, important both because of its life-saving mission and because it may prove to be a "rallying point of unity" in international affairs

As Dr. Parran himself recently said in a foreword to a summary of the history of the World Health Organization—"We in the United States must carry on two major jobs at once—we must maintain a place of leadership in world health affairs and at the same time redouble our efforts to attain a more comprehensive health program at home. We are faced with great opportunities for service to humanity."

In recognition of these and other services to the people of America and the world, the Lasker Awards Committee of the American Public Health Association has recommended that a Special Award be made this year to Dr. Parran, which will express the appreciation of this Association for his inspiring public health leadership in domestic and world affairs.

To the British Ministries of Food and Health, for the unprecedented program of food distribution in Great Britain, with resulting improvement in the health of the people.

Long before World War II, the Medical Research Council and the health authorities of Great Britain had been active in promoting research and in spreading knowledge of nutrition among the people.

In 1937 an Advisory Committee on Nutrition was set up by the British Ministry of Health which undertook a survey of the national diet. The background had therefore been developed before the outbreak of the war for the first large-scale application of the science of nutrition to the population of the United Kingdom. A separate Ministry of Food was established with wide executive powers over the production and rationing of foods, the purchase of foods from abroad, and the education of the public in the proper use of available foods. By the effective employment of its great powers, the Ministry of Food, in consultation with the Ministry of Health and with the advice (on all matters which might affect the health of the people) of a Standing Committee under the chairmanship of the Chief Medical Officer, succeeded to a remarkable degree in providing a diet for all the workers of the country in conformity with their physiological requirement, irrespective of income.

Although almost all other environmental factors which might influence the public health deteriorated under the stress of war, the public health in Great Britain was maintained and in many respects improved. The rates of infantile, neonatal and maternal mortality and of stillbirths all reached the lowest levels in the history of the country. The incidence of anemia and dental caries declined, the rate of growth of school children improved, progress was made in the control of tuberculosis, and the general state of nutrition of the population as a whole was up to or an improvement upon pre-war standards.

In the opinion of the Lasker Awards Committee, this has been one of the greatest demonstrations in public health administration that the world has ever seen. The Lasker Awards Committee of the American Public Health Association therefore takes great satisfaction in recommending awards for scientific and administrative achievement to

the British Ministries of Food and Health and to the four great leaders in this historic enterprise. Lord Woolton, Sir Jack Drummond, Sir Wilson Jameson, and Sir John Boyd Orr.

(Sir Wilson Jameson received the award on behalf of the group.)

To the United States Committee on Joint Causes of Death, for significant contributions to the international classification of diseases, injuries, and causes of death.

The Lasker Award of the American Public Health Association represents the appreciation of the workers in public health and medical care for the scholarly achievement of the United States Committee on Joint Causes of Death under the chairmanship of Dr. Lowell J. Reed. The work of this committee will greatly facilitate the exchange of statistical information on health and medicine between the countries of the world, and serve as one of the effective links in binding them together under the banner of the United Nations.

Although early classification of the causes of death for statistical purposes goes back to the great English medical statistician, William Farr (1855), the first international conference for the revision of the *International List* was called by the French Government in Paris in the year 1900, at which time the guiding force was Dr Jacques Bertillon. There was early recognition of the need for an international list of the causes of illness to facilitate the collection and exchange of information by all the countries of the world, supplementing the causes of mortality.

At the Fifth International Conference held in Paris in 1938 to revise the *International List,* the United States Government was requested officially to continue the previous studies of the Committee on Joint Causes of Death and to extend it into the field of morbidity classification. In 1945 the Secretary of State appointed the United States Committee on Joint Causes of Death to carry out this charge. The committee included representatives of the Canadian and British Governments and the Health Section of the League of Nations as associates or consultants and was headed by Dr. Reed, Vice-President and Professor of Biostatistics at the Johns Hopkins University.

Under Dr. Reed's inspired leadership and with the coöperation of its British and Canadian associates the committee accomplished its task successfully. A preliminary draft of the proposed statistical classification of diseases, injuries, and causes of death was then subjected to trials and reviews of various agencies and individuals in England, in the United States, and in Canada. The United States Committee met in Ottawa in March, 1947, with the International Committee which has been appointed to prepare for the 6th decennial revision of the *International List of Causes of Death,* and at this time the work of the United States Committee was adopted by the International Committee as the basis for its recommendations to the nations of the world when their representatives reconvene in Paris in 1948 for the purpose of revising the *International List.*

(Dr. Lowell J. Reed received the award on behalf of the group.)